



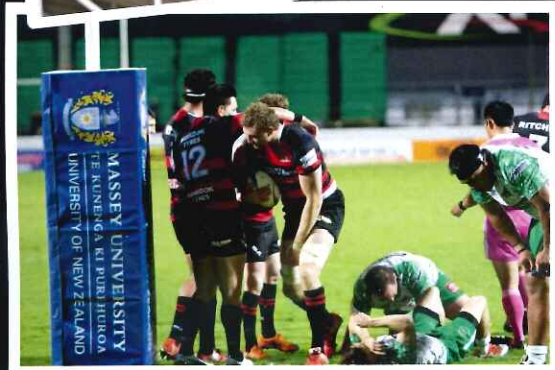
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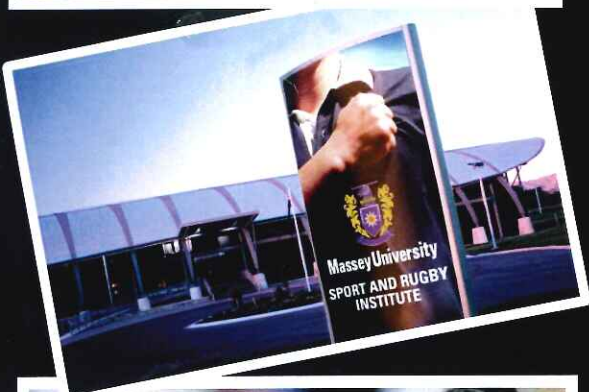
World in Union. International Rugby Conference.

Tackling the Big Issues. Passing on Knowledge. Kicking it Forward.



28th June-30th June, 2017

Palmerston North, New Zealand.



CONFERENCE PROGRAMME AND PROCEEDINGS



Conference Presentation Schedule: Friday 30th June

9am-955am	<i>Keynote Speaker (3) John Evans</i> Conference Room			
10am-1025am	Session 27 The New Rugby Smart <i>Joe Horowitz, Danielle Salmen, Ian Murphy</i>	Session 28 Plenary Session: Rugby Culture	Session 29 Symbolic Resistance and Contested Allegiances: Pacific Peoples in New Zealand Rugby <i>Andrew Grainger</i>	
	Conference Room	Syndicate Room	Board Room	
1030am	MORNING TEA: SRI FOYER			
11am-1125am	Session 30 Measurement of Competitive Balance in NSW Premiership Rugby: Is the Playoff Points System David Bony	Session 31 The Rugby Tour Gets Down to the Bedrock of New Zealand's Sporting Life Greg Ryan	Session 32 The Challenge of Japan JRFU: The Need for Strengthening Relationships with Spectators <i>Makoto Nakawaka, Satoshi Iwamura, Naoko Yashiro</i>	Session 33 Intelligent Career After Rugby: Getting Your Head in the Game <i>Julia Richardson, Stephen McKenna, Marilyn Clarke, Subramaniam Ananthram</i>
	Conference Room A	Conference Room B	Syndicate Room	Board Room
1130am-1155am	Session 34 Coaching & Promoting Rugby in Regional Schools: Problems, needs and successes. Dave Robinson	Session 35 Tales of the Tour: Accounts of the 1955, 1966, 1971 & 1977 Lions Tours in Sporting Literature Greg Watson	Session 36 Values of Oral Traditions in Rugby (Wisconsin Rugby Sports Complex) Robert Buchanan	Session 37 Public Health Agenda Influence on Regional Rugby Sponsorship Rachel Bailey & Sarah Gee
	Conference Room A	Conference Room B	Syndicate Room	Board Room
12pm-1225pm	Session 38 Rugby Injuries: A Conspiracy of Pain Phil Handcock & Tania Cassidy	Session 39 Oversus Rugby World Cup Rugby's Constraints Analysis <i>Tatsuru Nishio, Frank Scrimgeour, Harald van Heerde, Valentyna Melnyk</i>	Session 40 New Zealand Rugby Concussion: Management & Treatment Daniele Salmen	Session 41 & 45 Plenary Session: Injury & Prevention
	Conference Room A	Conference Room B	Syndicate Room	
1230pm-1255pm	Session 42 Nationalism, Rugby & Emotion: Love, Hate & Everything in Between Toni Blane	Session 43 A Systems Perspective on Governance in Sport Organisations John Davies	Session 44 Do the world's best influence on-field performance? Estimating the impact of NZ rugby coaches Sam Richardson	
	Conference Room A	Conference Room B	Syndicate Room	Board Room
1pm-2pm	LUNCH: SRI FOYER			
2pm-255pm	<i>Keynote Speaker (5) Melodie Robinson</i> Conference Room			
3pm-325pm	Session 46 NZ Rugby's Leadership of Anti-Homophobia & Inclusion Policies in NZ Sport <i>Sally Shaw, & Ivo Long</i>	Session 47 Rugby Strength & Conditioning: Fronting Up to Contemporary Issues and Practice <i>Tania Cassidy & Phil Handcock</i>	Session 48 Livelihoods, Creation and Poverty Reduction through Rugby Generated Remittances <i>Rachelle Stewart-Walters, Kall Sewaba, Sam Richardson</i>	
	Conference Room	Syndicate Room	Board Room	
330pm	AFTERNOON TEA: SRI FOYER			
4pm-425pm	Session 49 What is the Purpose? Rugby Coaching in NZ Secondary Schools Blair Bennett	Session 50 "Barbed Wire Balls": The Long Shadow of the 1961 Springbok Tour of New Zealand Sebastian Patzinger	Session 51 Nava Session	Session 52 Plenary Session: History, Culture & Nationalism
	Conference Room A	Conference Room B		Board Room
430pm-455pm	Session 53 Changing the Paradigm: More Than Just a Player! Glean Fyfe?	Session 54 Quantifying & Comparing the Physical Characteristics of Sub-Elite Level Rugby Players <i>Martin Hoggie, Ni Sapa, Pirani van der Merwe & Masoni Ito</i>	Session 55 Injury Prevention in Male & Female Rugby Players <i>Mike Hammett, Darryl Cochrane, Scott Finfold</i>	
	Conference Room A	Conference Room B	Syndicate Room	Board Room

N.B. Some abstract titles have been shortened to fit the schedule formatting. Full abstract titles are noted with accompanying abstracts in the conference programme (to be released in June).

Quantifying and Comparing the Physical Characteristics of Sub-Elite Level University Age Rugby Players from New Zealand and Japan

Marrin Haggie¹, N Saga² & Frans van der Merwe¹
¹Waikato Institute of Technology, ²Teikyo University

Objectives: To quantify and compare the physical characteristics of sub-elite university age rugby players from New Zealand and Japan.

Methods: Fifty-seven athletes from New Zealand (n=28) and Japan (n=29) were assessed using a battery of standardised testing protocols to determine individual physical characteristics. Athletes were measured for height, weight, body composition (sum of 8 skinfolds), flexibility (sit and reach), muscular strength (predicted 1RM back-squat and bench-press), muscular power (counter-movement jump and bench-throw), muscular endurance (60s pull-ups and push-ups), speed (10,20 and 40m sprint), change of direction speed (505 agility test), aerobic capacity (multi-stage shuttle run test) and repeated sprint ability (repeated sprint ability test).

Results: The differences between the New Zealand and Japanese athletes are minimal. However, the New Zealand athletes tested significantly better ($p < 0.05$) than the Japanese athletes for flexibility ($27.81 \pm 7.27\text{cm}$ vs $13.15 \pm 6.65\text{cm}$) and 10m sprint speed ($1.76 \pm 0.08\text{s}$ vs $1.81 \pm 0.08\text{s}$). Japanese athletes tested significantly better ($p < 0.05$) than their New Zealand counterparts for counter-movement jump ($72.91 \pm 6.69\text{cm}$ vs $59.68 \pm 7.77\text{cm}$), bench-throw ($1215.38 \pm 218.14\text{w}$ vs $825.9 \pm 209.45\text{w}$), 60s push-up endurance (65.63 ± 16.68 vs 53.63 ± 12.87) and repeated sprint ability test difference ($0.49 \pm 0.3\text{s}$ vs $0.25 \pm 0.07\text{s}$). No significant differences were evident for all other measured variables.

Conclusion: The physical characteristics of New Zealand and Japanese sub-elite university age rugby players are similar. However, the New Zealand athletes showcase superior 10m sprint speed and hamstring and lower back flexibility. The Japanese athletes showcased superior lower body power, upper body power, muscular endurance and repeated sprint abilities.